A. SPCC INSPECTION FIELD SHEET

(To be completed if SPCC Regulation is applicable to Facility - see 40CFR Part 112.1.)

SEE INSTRUCTIONS ON REVERSE

1a. NAME OF FACILITY
Chevron Chemical Co.

1b. TYPE OF FACILITY
Pesticides Manuf.

1c. FACILITY LOCATION
Metuchen and Harmich Rds. P.O. Box 289 South Plainfield, NJ 07080

2a. NAME OF OWNER AND/OR OPERATOR RESPONSIBLE FOR FACILITY
Chevron Chemical Co.

2b. TELEPHONE NUMBER *Area Code*
(415) 894-3925

2c. MAILING ADDRESS
575 Market St. San Francisco, Ca 94105

3. TYPES OF OIL STORED AND CAPACITY OF ABOVEGROUND AND BURIED STORAGE.

ABOVE GRD.
- Fuel oil — 21,000 gals in largest tank.
- Kerosene
- Mineral oil
- Sun oil

4. IS A CERTIFIED SPCC PLAN AVAILABLE FOR INSPECTION? [X] YES [ ] NO

5. DATE OF INSPECTION
11/18/81

6. NAME AND REGISTRATION NUMBER OF CERTIFYING ENGINEER [ ] NOT AVAILABLE
G.E. Twitchell, P.E.
Registration # 11429, State of California

7. DATE SPCC PLAN WAS CERTIFIED [ ] NOT AVAILABLE
11/26/80

8. IS SPCC PLAN FULLY IMPLEMENTED? *(Are the items called for in the Plan in the interest of spill prevention actually installed - if observable!)* [ ] NOT APPLICABLE
Yes - Plan appears to address all points of the SPCC regulations and appears to be well implemented.

9. NAME OF WATER BODY THAT POTENTIAL SPILL COULD ENTER; OR IF UNNAMED TRIBUTARY, THEN FIRST NAMED WATERBODY DOWNSTREAM *(if known)*
Bound Brook, see attached map in document C.

10. COMMENTS *(Include comments by owner/operator - write on back or attach extra sheets if needed)*
At this time this facility is being investigated by the FIT for a report that pesticide residues have been buried at the rear of the property (beside the railroad spur).

Operator would like a copy of the report.

11a. SPCC NO.

11b. CASE NO.

11c. NPDES NO. [ ] NOT AVAILABLE

12a. INSPECTOR *(sign)*
Trudi Fancher

12b. DATE
5/7/82

12c. INSPECTOR *(print)*
Trudi Fancher, TAT II

EPA Form 7500-53 (9-80)

168472

INSTRUCTIONS

1. Trade name of facility and its precise location, using geographical latitude and longitude if necessary.
2. If owner and operator are different persons, give information for both. State relation between them - is operator cosignee, leasee, or employee? Who is responsible for SPCC?
3. Note capacity and whether tanks are full or not. Note tanks which store alternate oils. Check lube storage - whether buried or above-ground *(latter more likely)*.
4. Note adequacy of Plan; if inadequate, state specific defects. Use 10. below for details.
5. Actual date of visit to facility.
6. Include state in which engineer is registered. If Plan was amended and the amended Plan certified by a different engineer, list information for all engineers.
7. List for original Plan and any amended Plans.
8. Summary of deficiencies in Plan implementation. Discuss this with operator and record his opinions and comments in 10. below.
9. Specify distance and direction to nearest named stream, river, lake, bayou, estuary, etc. which will receive runoff from the facility. If facility runoff goes to storm drain, ultimate receiving water should be named.
10. Space for comments by inspector and operator. Inspector should briefly list SPCC equipment actually in use at time of inspection. If facility was not in compliance, inspector should include expected dates of Plan preparation and/or implementation.
11. SPCC No. refers to national EPA Data Bank. Case No. refers to Regional EPA designation.
12. Date on which Field Sheet was actually completed.

10. COMMENTS *(continued from other side)*

B. SPCC INSPECTION SUMMARY SHEET

SPCC NO.	CASE NO.	DATE OF INSPECTION
		18 Nov 1981
NAME OF INSPECTOR (Signature)		DATE OF DOCUMENTATION REPORT
Trudi Fancher		7 May 1982
NAME OF INSPECTOR (Print)		NPDES NO.
Trudi Fancher		

1. FACILITY

a. COMPANY: Chevron Chemical Co.

ADDRESS: Metuchen & Harmich Rds. P.O Box 289 | TELEPHONE: (201) 757-1400

CITY: South Plainfield | STATE: NJ | ZIP CODE: 07080

FACILITY NAME: Same as above

b. FACILITY LOCATION:

PARENT CORPORATION: Chevron Chemical Co.

ADDRESS: 575 Market St.

CITY: San Francisco | STATE: Ca. | ZIP CODE: 94105

c. WATER BODY PROTECTED: Bound Brook

2. PURPOSE

INITIATION: ☐ Routine Surveillance ☐ Coast Guard Information ☐ Spill Report ☑ Citizen Information ☐ Other (specify):

TYPE: ☐ Plan Preparation ☑ Plan Implementation ☐ Follow-up ☐ Plan Amendment

3. INSPECTION

INDIVIDUAL CONTACTED	TITLE
Mr. Skip Gage	PLANT ENG. Manufac.

NOTIFICATION: Telephoned / visited facility

4. FINDINGS

SOURCE IN APPARENT COMPLIANCE WITH SPCC REQUIREMENTS:

☑ Yes
- ☑ Have adequate plan
- ☐ Not subject to regulations
  - ☐ Insufficient storage
  - ☐ No reasonable spill expectation
- ☑ Plan fully implemented
- ☐ New facility operational less than 6 months

☐ No
- ☐ No plan
- ☐ Plan not properly certified
- ☐ Plan does not have management approval
- ☐ Plan not maintained at facility manned 8 hrs/day
- ☐ Inadequate plan *(detailed SPCC Plan review attached)*
- ☐ Plan not fully implemented
- ☐ Plan not reviewed within 3 years

☐ Other

5. ATTACHMENTS *(None required if facility in apparent compliance)*

	NONE	ATTACHED	ALREADY ON FILE
*Detailed Observations	☐	☐	☐
*Photographs	☐	☑	☐
Slides	☐	☐	☐
Map	☐	☑	☐
*Field Drawing	☐	☐	☐
*Comments	☐	☐	☐
Telephone Conversations	☐	☐	☐
*SPCC Plan	☐	☑	☐

(ALL REQUIRED IF FACILITY IS NOT IN APPARENT COMPLIANCE. If photos not permitted, check "None" and explain. Add "SPCC Plan" to List of Attachments when appropriate.)

C. DETAILED SPCC DOCUMENTATION

SEE INSTRUCTIONS ON PAGE 8

FACILITY: Chevron Chemical Co-

DATE OF INSPECTION: 18 Nov 1981

1. FACILITY DESCRIPTION

1a. TYPE OF BUSINESS/OPERATION

Pesticides Manufacture

1b. FACILITY OIL STORAGE

Maximum above ground capacity of largest tank = 21,000 gals

Fuel oil, Kerosene, Klearol, mineral oil, sun oil

1c. PREVENTION MEASURES PROVIDED

- Concrete wall provides more than adequate containment for the volume of the largest tank which is 21,000 gals.
- Containment area is slightly graded with a locked valve outlet.
- Tank car/truck delivery areas have grated troughs in impervious floors to catch spillage.
- Delivery areas are partially enclosed to discourage the collection of rain water.
- Any spillage is collected in a sump and stored in a waste wtr. tank
- Facility is fenced, well illuminated, and has good security, including locks on the tanks & valves to deter vandalism.

1d. APPEARANCE OF FACILITY (housekeeping)

The oil storage/delivery areas of the facility appeared to be well maintained.

1e. PAST SPILL HISTORY

NONE

2. RECEIVING WATER *(should a spill occur)*

2a. NAME AND/OR DESCRIPTION

Tributary of Bound Brook (see attached maps and photographs), the Raritan River which flows into the Atlantic Ocean.

- [x] Perennial
- [ ] Intermittent
- [ ] Water present at time of inspection
- [ ] Inspector traced discharge to receiving water
- [ ] Inspector traced apparent drainage path to receiving water
- [ ] Receiving water identified by company representative
- [ ] Receiving water identified from topo maps
- [ ] Receiving water identified by other means *(specify):*

2b. PROBABLE FLOW PATH TO RECEIVING WATER

Without secondary containment the oil in storage could flow across the gently sloping ground in photograph #1 and drain southeastwards into a tributary of Bound Brook.

2c. CLIMATIC INFORMATION FROM OWNER/OPERATOR

N/A- facility located on eastern seaboard of New Jersey.

3. COMMENTS

Facility appears to comply with 40 CFR 112 regulations.

4. SPCC PLAN REVIEW

Facility has an SPCC Plan which is being well implemented.

5. SPCC AMENDMENT RECOMMENDATIONS *(Amendment Inspections only)*

NONE

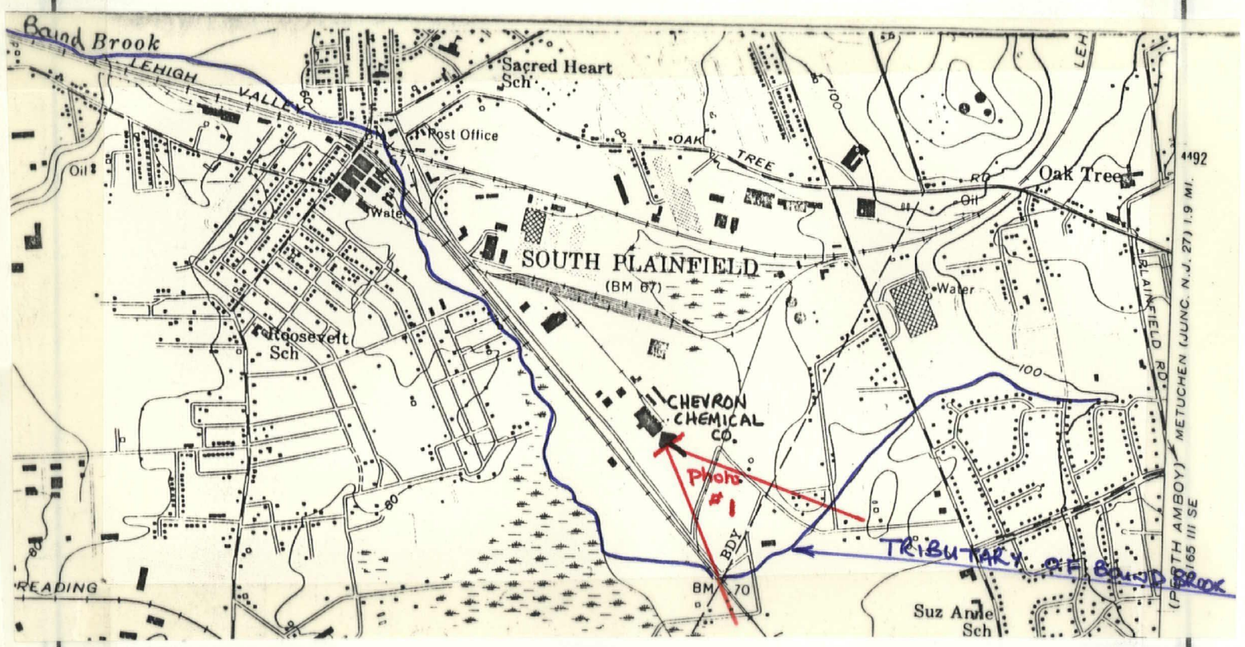
5. SPCC AMENDMENT RECOMMENDATIONS *(Amendment Inspections only)*

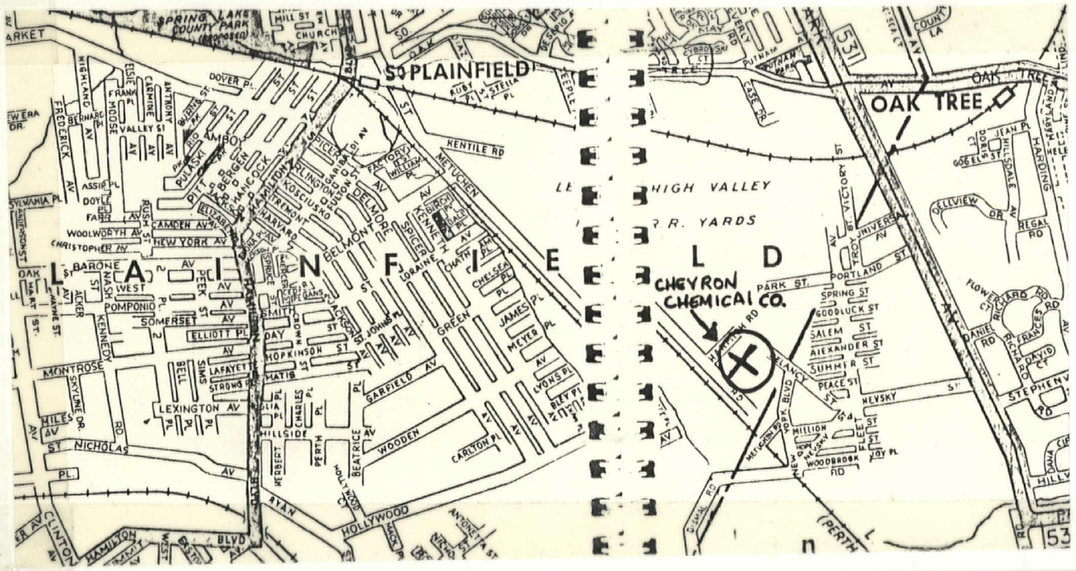
None

6. FIELD DRAWINGS *(Attach more sheets if needed, and show north arrow or other orientation)*

FACILITY	INSPECTION DATE
INSPECTOR	

6. FIELD DRAWINGS *(Attach more sheets if needed, and show north arrow or other orientation)*





FACILITY Chevron Chemical Co.	INSPECTION DATE 18 NOV 1981
INSPECTOR Trudi g. Fancher	

7. PHOTOGRAPHS *(Attach more sheets if needed)*

SUBJECT Photograph #1 View of site drainage flow towards trib- utary of Bound Brook.	FACILITY Chevron Chemical Co.
PHOTOGRAPHER TRUDI FANCHER, TAT	WITNESSES
WITNESSES John Bee and Christine Hylemon, TAT	WITNESSES Skip Page
DATE/TIME/DIRECTION 18 Nov. 1981	CAMERA/FILM/ATTACHMENTS Polaroid
SUBJECT Photograph # 2 Tanks with secondary containment	FACILITY Chevron Chemical Co.
PHOTOGRAPHER T. Fancher	WITNESSES Christine Hylemon, TAT
WITNESSES John Bee, TAT	WITNESSES Skip Page
DATE/TIME/DIRECTION 18 Nov. 1981	CAMERA/FILM/ATTACHMENTS Polaroid

ATTACH PHOTOGRAPHS HERE

Photograph #1 taken looking South eastwards over the oil storage containment wall, to show direction of probable flow path from site to tributary of Bound Brook located along the distant tree line

Photograph #2 of oil storage and secondary containment.

INSTRUCTIONS

Page 1: **FACILITY DESCRIPTION**
(a) Make detailed in narrative style; use extra sheets if needed.
(b) Include all storage; indicate capacity and actual amount and type of oil in each tank, including tanks not in use - above-ground or buried. Indicate percent of oil in mixed storage and annual throughput where possible. If this information is included on attached drawing or lists, state this here.
(c) Describe all types and adequacy of prevention measures - dikes, catchment areas, drainage systems, separators, tank level alarm systems, drainage pumps, etc. Describe major security measures taken - locks, guards, fencing, etc.
(d) Describe maintenance at facility. Use such terms as "neat and well-maintained", "messy and poorly maintained" etc. Describe any unsatisfactory maintenance such as oil pools, broken dikes, etc.
(e) Obtain statement about past spills at this facility; observe drain controls; look for evidence of past spills.

Page 2: **RECEIVING WATER**
(a) This should be a recognizable river, stream, lake, estuary, etc. which can be expected to contain water at least part of the year.
(b) Explicitly describe, using approx. distances in meters or kilometers ***(feet or miles),*** **all of the drainage paths from facility to receiving water or storm drain in (a).**
(c) Add here any statements obtained about annual rainfall, runoff, flooding, etc.

Page 3: **COMMENTS**
Describe soil conditions as they relate to spill runoff and whether spills have a reasonable chance of reaching drainage channels, storm drains or waterways. Obtain statements from owner/operator which indicate whether the person is aware of 40 CFR 112.

Page 4: **SPCC PLAN REVIEW**
State whether facility has an SPCC Plan and whether it is adequate. Describe in detail any inadequacies in SPCC Plan or its implementation. Include references to pertinent paragraphs of Spill Prevention Regulations.

Page 5: **SPCC AMENDMENT RECOMMENDATIONS** *(Amendment Inspection only)*
Describe areas of past and potential oil spills and corrective actions, preventive measures and countermeasures carried out in facility. Based on your inspection, will these features of the post-spill SPCC Plan adequately minimize the possibility of recurrence? Why? If not, state recommendations for SPCC Plan amendments in detail - attach quantitative information, drawings, etc.

Page 6: **FIELD DRAWINGS** *(attach more sheets if needed and show north arrow or other orientation)*
Show: all major features with spill potential requiring spill prevention measures; all drainage features that relate to potential spills, such as catch basins, storm drains, channels, ponding areas, dikes, sumps, etc.; the appropriate distances in meters or kilometers ***(feet or miles)*** **along drainage paths from spill potential areas to water course** or water body in 2(a).

Page 7: **PHOTOGRAPHS** *(attach more sheets if needed)*
Show inadequate SPCC features, spills, poor maintenance, proximity to waterways, and so forth. Mount photographs on page 7; attach more sheets if needed.

7. PHOTOGRAPHS *(Attach more sheets if needed)*

SUBJECT	FACILITY
PHOTOGRAPHER	WITNESSES
WITNESSES	WITNESSES
DATE/TIME/DIRECTION	CAMERA/FILM/ATTACHMENTS
SUBJECT	FACILITY
PHOTOGRAPHER	WITNESSES
WITNESSES	WITNESSES
DATE/TIME/DIRECTION	CAMERA/FILM/ATTACHMENTS

ATTACH PHOTOGRAPHS HERE

INSTRUCTIONS

Page 1: **FACILITY DESCRIPTION**

(a) Make detailed in narrative style; use extra sheets if needed.

(b) Include all storage; indicate capacity and actual amount and type of oil in each tank, including tanks not in use - above-ground or buried. Indicate percent of oil in mixed storage and annual throughput where possible. If this information is included on attached drawing or lists, state this here.

(c) Describe all types and adequacy of prevention measures - dikes, catchment areas, drainage systems, separators, tank level alarm systems, drainage pumps, etc. Describe major security measures taken - locks, guards, fencing, etc.

(d) Describe maintenance at facility. Use such terms as "neat and well-maintained", "messy and poorly maintained" etc. Describe any unsatisfactory maintenance such as oil pools, broken dikes, etc.

(e) Obtain statement about past spills at this facility; observe drain controls; look for evidence of past spills.

Page 2: **RECEIVING WATER**

(a) This should be a recognizable river, stream, lake, estuary, etc. which can be expected to contain water at least part of the year.

(b) Explicitly describe, using approx. distances in meters or kilometers ***(feet or miles),*** **all of the drainage paths from facility to receiving water or storm drain in (a).**

(c) Add here any statements obtained about annual rainfall, runoff, flooding, etc.

Page 3: **COMMENTS**

Describe soil conditions as they relate to spill runoff and whether spills have a reasonable chance of reaching drainage channels, storm drains or waterways. Obtain statements from owner/operator which indicate whether the person is aware of 40 CFR 112.

Page 4: **SPCC PLAN REVIEW**

State whether facility has an SPCC Plan and whether it is adequate. Describe in detail any inadequacies in SPCC Plan or its implementation. Include references to pertinent paragraphs of Spill Prevention Regulations.

Page 5: **SPCC AMENDMENT RECOMMENDATIONS** *(Amendment Inspection only)*

Describe areas of past and potential oil spills and corrective actions, preventive measures and countermeasures carried out in facility. Based on your inspection, will these features of the post-spill SPCC Plan adequately minimize the possibility of recurrence? Why? If not, state recommendations for SPCC Plan amendments in detail - attach quantitative information, drawings, etc.

Page 6: **FIELD DRAWINGS** *(attach more sheets if needed and show north arrow or other orientation)*

Show: all major features with spill potential requiring spill prevention measures; all drainage features that relate to potential spills, such as catch basins, storm drains, channels, ponding areas, dikes, sumps, etc.; the appropriate distances in meters or kilometers ***(feet or miles)*** **along drainage paths from spill potential areas to water course** or water body in 2(a).

Page 7: **PHOTOGRAPHS** *(attach more sheets if needed)*

Show inadequate SPCC features, spills, poor maintenance, proximity to waterways, and so forth. Mount photographs on page 7; attach more sheets if needed.

Chevron Chemical Co.
Metuchen & Harmich Rds.
South Plainfield, NJ
07080

CONTAINMENT EQUIPMENT/STRUCTURE OR CONTINGENCY PLAN

GENERAL SPCC PREVENTION PLAN CHECKLIST

Secondary containment and/or diversionary structures are used for possible spill sources:

Source — Type of Containment or Diversionary Structure

Select from: Dikes, berms, retaining walls, curbing, culverting, gutters, drains, weirs, booms, other barriers, spill diversion, retention ponds and sorbent materials.

Concrete wall surrounding tank field with adequate containment capabilities.

If the containment or diversionary structures above are impracticable, state reasons for impracticability:

See above - adequate

and attach a strong oil spill contingency plan and written commitment of manpower equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged. Check if attached:

Contingency Plan ___ Written Commitment ✓

Discussion: Commitment given

APPLICABLE EPA GUIDELINES
40 CFR PART 112.7

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

(1) Onshore facilities.

(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil

(ii) Curbing

(iii) Culverting, gutters or other drainage systems

(iv) Weirs, booms or other barriers

(v) Spill diversion ponds

(vi) Retention ponds

(vii) Sorbent materials

(2) Offshore facilities.

(i) Curbing, drip pans

(ii) Sumps and collection systems

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR Part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

APPENDIX C
SPCC INSPECTION CHECKLIST

NONPRODUCTION - ONSHORE

	YES	NO
A. Drainage		
(1) Drains from diked storage areas have valves.	✓	
(2) Drain valves are manual, open-and-close design.	✓	
(3) Rain water from diked areas is inspected before drainage.	✓	
(4) Plant drainage systems are equipped with either:		
a. Ponds, lagoons or catchment basins to retain oil or	✓	
b. A diversion system at the final discharge point which could contain an uncontrolled spill and return the oil to the plant.		
(5) Flow of drainage water between treatment units is by either:		
a. Natural hydraulic flow or	N/A	
b. Two "lift" pumps (one a spare and one permanently installed).		

Discussion: _____

40 CFR PART 112.7

(1) *Facility drainage (onshore); (excluding production facilities).* (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraph (e)(2)(iii) (B, C and D) before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

B. Bulk Storage Tanks	YES	NO
(1) Tank material and construction are compatible with fluid stored.	✓	
(2) Secondary containment volume is greater than the largest single tank capacity plus an allowance for rainwater.	✓	
(3) Drainage of rainwater from diked areas into open waters, by-passing inplant treatment, is accomplished according to the folowing:		
a. Normally the by-pass valve is sealed closed.	✓	
b. The rainwater is inspected to insure compliance with water quality standards.	✓	
c. The by-pass valve is opened and resealed under responsible supervision.	✓	
d. Records are kept of bypassing and drainage events.	✓	
(4) Buried metallic storage tanks:		
a. New tanks are coated and wrapped to reduce corrosion.	N/A	
b. Cathodic protection is provided for tanks as necessary.		
c. Tanks are pressure tested on a scheduled, periodic basis.		
(5) Partially buried metallic tanks are avoided (for stored oil) unless adequate shell coating is provided for the buried portion.	N/A	

(2) *Bulk storage tanks (onshore); (excluding production facilities).* (i) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an in-plant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

NONPRODUCTION - ONSHORE(Continued)

40 CFR PART 112.7

	YES	NO
(6) Aboveground tanks are tested by one of the following methods:		
a. Hydrostatic testing		
b. Visual inspection	✓	
c. Shell thickness testing (comparison records of shell thickness reduction are maintained)		
(7) Internal heating coil leakage is controlled by one or more of the following:		
a. Monitoring the steam return or exhaust lines for oil.	N/A	
b. Passing the steam return or exhaust lines through a settling tank, skimmer or other separation system.		
c. Installing external heating systems.		
(8) All bulk storage tanks are externally inspected on a monthly basis (including seams, rivets, bolts, gaskets, nozzle connections, valves, connected pipelines and tank foundation and/or supports) for leaks or failures.	✓	
(9) Tanks are fail safe engineered by one of the following:		
a. High liquid level alarms with an audible signal at a constantly manned station.		
b. High liquid level pump cutoff devices.		✓
c. Direct communication between the tank gauger and pumping station.	✓	
d. One fast means of determining the liquid level in tanks (such as digital computers, telepulse or direct visual gauges).	✓	

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contaminatic or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

NONPRODUCTION - ONSHORE (Continued)

	YES	NO
e. Liquid level sensing devices are inspected and tested on a scheduled, periodic basis.	___	___
(10) Frequent plant effluent observations to detect upsets are made.	✓	___
(11) Mobile storage tanks are properly positioned to prevent spill reaching navigable water.	N/A	___

Discussion: _____

_____

_____

_____

_____

_____

_____

_____

77

Intra-Facility Transfer Operations, Pumping and Inplant Process

A. Buried Pipelines

(1) Pipelines are wrapped and coated to reduce corrosion.	N/A	___
(2) Cathodic protection is provided for pipelines as needed.	___	___
(3) When a pipeline section is exposed, it is inspected and corrective action taken as necessary.	___	___

40 CFR PART 112.7

(3) *Facility transfer operations, pumping, and in-plant process (onshore); (excluding production facilities).* (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

NONPRODUCTION - ONSHORE (Continued)

40 CFR PART 112.7

	YES	NO
B. Pipeline terminal connections are capped or blank-flanged and marked if the pipeline is not in service or on standby service for long periods.	✓	

Discussion: _____

_____

_____

_____

	YES	NO
C. Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contractions.	✓	

Discussion: _____

_____

_____

_____

	YES	NO
D. All aboveground valves and pipelines are inspected on a scheduled, periodic basis (including flange joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces.)	✓	

Discussion: _____

_____

_____

	YES	NO
E. Vehicles entering the facility are inspected and/or warned to avoid damaging aboveground piping.	✓	

Discussion: _____

_____

_____

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

Discussion (cont'd)_____

	YES	NO
D. Intra-Facility Tank Car & Tank Truck Loading/Unloading		
A. Loading/unloading procedures meet the minimum requirements and regulations of the Department of Transportation.	✓	
B. The unloading area has quick drainage system.	✓	
C. The containment system will hold maximum capacity of any single tank truck loaded/unloaded in the plant.	✓	
D. An interlocked warning light or physical barrier system or warning signs are provided in the loading/unloading areas to prevent vehicular departure before disconnect of transfer lines.	✓	
E. Drains and outlets on tank trucks and tank cars are checked for leakage before loading or unloading.	✓	

Discussion:_____

(4) *Facility tank car and tank truck loading/unloading rack (onshore).* (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

OIL PRODUCTION - ONSHORE

E. Oil Production - Onshore	YES	NO
(1) Secondary containment drains are closed and locked.		
(2) Ditches, sumps, traps, etc. are kept clean of oil		
(3) Tanks are compatible with oil stored.		
(4) Tanks & treating equipment have secondary containment.		
(5) Tank batteries are failsafe.		
(a) Tanks have extra capacity.		
(b) Equalizing lines are used.		
(c) Vacuum eliminators are used.		
(d) High level alarms are used.		
(6) Piping/plumbing equipment is inspected regularly.		
(7) Disposal pits are kept at sufficiently low levels.		
(8) Flowline preventive maintenance program is utilized.		

Discussion: _____

_____

_____

_____

_____

(5) *Oil production facilities (onshore).* (i) *Definition.* An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage.* (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraph (e)(2)(iii) (B), C), and (D). Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks.* (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be failsafe engineered or updated into a failsafe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(*1*) Adequate tank capacity to assure that a tank will not overfill should a pumper/gauger be delayed in making his regular rounds.

(*2*) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(*3*) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(*4*) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be examined often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

F. Oil Drilling and Workover (Onshore)

	YES	NO
(1) Secondary containment is provided.	___	___
(2) Blowout preventers are utilized.	___	___

Discussion: _____

(c) *Oil drilling and workover facilities (onshore)* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

G. Oil Drilling/Workover and Production - Offshore	YES	NO
(1) Drainage/collection equipment is properly installed?	___	___
(2) Sumps are properly sized, and have a preventive maintenance program, and are kept free of oil?	___	___
(3) Sump pump/controls are redundant (when automatic)?	___	___
(4) If dump valves are set to be closed in the event of failure, are measures taken to prevent oil discharges to water?	___	___
(5) Are high level alarms utilized on storage and pressure tanks?	___	___
(6) Tanks are protected from corrosion?	___	___
(7) Inspection and testing procedures are are written and implemented?	___	___

Discussion: _____

40 CFR PART 112.7

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation - related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

		YES	NO
(8)	Testing/inspection occurs on regularly scheduled basis?	___	___
(9)	Surface/subsurface shut-in valves are properly activated by pressure or flow, etc.?	___	___
(10)	B.O.P.'s are utilized during drilling/workover?	___	___
(11)	Well surface shut-in valves have redundant or final-close valving?	___	___
(12)	Instructions have been prepared for contractors and subcontractors so that the work is performed in a safe and pollution free manner?	___	___
(13)	Manifolds have checkvalves installed on individual flowlines?	___	___
(14)	Where well pressure can be greater than the safe working pressure of the flowlines - are wells automatically shut-in when the pressure exceeds the safe limit?	___	___
(15)	Are all pipelines protected by corrosion prevention systems?	___	___

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any wellhead pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shutin valve at the wellhead unless provided with a pressure relief system to prevent over pressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

40 CFR PART 112.7

YES	NO	
		(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.
		(xviii) Sub-marine pipelines appurtenant to the facility should be in good operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(16) Are submarine pipelines protected from stresses (waves, fishing lines, etc.)?

(17) Are submarine pipelines in good operating condition and inspected on a periodic basis for failures (if it is impractical to visually inspect - do they have a statistical prevention program?)

Discussion: _____

	YES	NO
Inspections and Records		
A. The required inspections follow written procedures.	___	✓
B. The written procedures and a record of inspections, signed by the appropriate supervisor, are included in the SPCC plan.	___	✓

Discussion: _____

Security		
A. Plants handling or storing oil are fenced.	✓	___
B. Entrance gates are locked and/or guarded when the plant is unattended or not in production.	✓	___
C. Any valves which permit direct outward flow of a tank's contents are locked closed when in non-operating or non-standby status.	✓	___
D. Starter controls on all oil pumps in non-operating or non-standby status are locked or electrically isolated in the "off" position.	✓	___
E. The loading/unloading connections of oil pipelines are capped or blank-flanged when not in service or on standby service for extended periods.	✓	___

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are, in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

FACILITY OPERATION (Concluded)

F. Description of the lighting around the facility:

Adequate

Discussion:

	YES	NO
Personnel, Training and Spill Prevention Procedures		
A. Personnel are properly instructed in the following:		
(1) Operation and maintenance of equipment to prevent oil discharges, and	✓	
(2) Applicable pollution control laws, rules and regulations.	✓	
B. Spill prevention briefings for the operating personnel are conducted on a scheduled, periodic basis.	✓	

Fully describe methods and schedules for above:

Plant management ~~personnel~~ supervisors instruct personnel in proper procedures to prevent & control spills. These instructions include review of regulations. Periodic briefings of personnel are to be made to assure that proper procedures and the provision of the SPCC Plan are observed.

40 CFR PART 112.7

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings